

[illegible]

7.0 GLOSSARY

Acre-foot	Volume of water required to cover 1 acre to a depth of 1 foot; equivalent to a volume of 43,560 cubic feet.
Alluvial	Pertaining to material or processes associated with transportation or deposition of soil and rock by flowing water (e.g., streams and rivers).
Alluvium	Unconsolidated or poorly consolidated gravel, sands, and clays deposited by streams
Ambient Noise	Total, all-encompassing noise associated with a given environment and time.
Ambient	The environment as it exists at the point of measurement and against which changes or impacts are measured.
Aquifer	A body of rock that is sufficiently permeable to conduct groundwater and to yield economically significant quantities of water to wells and springs.
Artesian	Refers to groundwater under sufficient hydrostatic head to rise above the aquifer in which it is contained.
Background Noise	Noise from all sources other than that from a particular source of interest (e.g., other than mining noise if mining noise were being investigated).
Boom	To prevent short-circuiting of surface water control facilities. A floating tubular shaped device fabricated from woven or rubberized fabric designed to route water flow in an open pond. Most booms also include a submerged curtain that extends from the floating portion to the pond bottom and aids in lengthening the path that water would follow from the inlet to the outlet. The device would be positioned by shore-based anchor cables and adjusted as needed to maximize water retention time in the pond.
Bottom Ash	The non-airborne combustion residue from burning pulverized coal in a boiler; which then falls to the bottom of the boiler and is removed mechanically.
Bryophyte	Non-flowering plants such as mosses and liverworts.
Cambrian	The geologic span of time between 570 and 505 million years ago.
Cenozoic	The geologic span of time between 66 million years ago to the present.
CNEL	Community Noise Equivalent Level. Leq for a 24-hour, midnight to midnight period with 5 dBA added to the sound levels from 7:00 p.m. to 10:00 p.m. and 10 dBA added to the sound levels between 10:00 p.m. and 7:00 a.m.
Cone of Depression	The depression of heads around a pumping well caused by the withdrawal of water.

Cretaceous	The geologic span of time between 144 and 66 million years ago.
Critical Habitat	Habitat that is present in minimum amounts and is the determining factor in the potential for population maintenance and growth.
Cumulative Effects	The combined environmental impacts that accrue over time and space from a series of similar or related individual actions, contaminants, or projects. Although each action may seem to have a negligible impact, the combined effect can be significant. Included are activities of the past, present, and reasonably foreseeable future; synonymous with cumulative impacts.
dB Decibel	Unit of measure of sound pressure and sound power levels. Expresses relative difference in power between two signals equal to 10 times the logarithm (base 10) of the ratio of the two levels.
dBA	A-weighting. The most commonly used frequency weighting measure; simulates human sound perception and correlates well with human perception of the annoying aspects of noise.
Deltaic Environment	Delta environment.
Depressurization Wells	Wells installed in the Simsboro Formation to prevent pit floor heaving.
Dewatering Wells	Well installed in the lower third of the Calvert Bluff Formation to provide for pit wall stability and safe working conditions.
Dip-oriented pit	A relatively straight excavation completed by dragline and/or other mobile equipment to uncover lignite seams that are oriented approximately perpendicular to the geologic strike of lignite seams.
Direct Impacts	Impacts that are caused by the action and occur at the same time and place (40 Code of Federal Regulations 1508.7); synonymous with direct effects.
Discharge	The volume of water flowing past a point per unit time, commonly expressed as cubic feet per second, gallons per minute, or million gallons per day.
Disturbed Area	An area where natural vegetation and soils have been removed.
Drainage	The natural channel through which water flows some time of the year; natural and artificial means for affecting discharge of water as by a system of surface and subsurface passages.
Drawdown	The lowering of the water level in a well as a result of withdrawal; the reduction in head at a point caused by the withdrawal of water from an aquifer.
Edaphic	Pertaining to soils.
End Lake	Lakes allowed to develop in the final two mine pit areas in accordance with post-mining land uses.

Endangered Species	Any species in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 Endangered Species Act.
Ecocene Epoch/Series	The geologic span of time between 37.5 to 54 million years before present.
Ephemeral Stream	A stream or portion of a stream that flows briefly in direct response to precipitation in the immediate vicinity and whose channel is at all times above the water table.
EPNL	Effective Perceived Noise Level. EPNL measurements consist of a frequency weighting scheme considerably more complicated than the A-weighting filter used to determine SELs. They incorporate a penalty for the presence of pure tones to account for people's increased annoyance with single frequencies, such as the tones emanating from the compressor of turbofan engines. Thus, although specific values must be determined by computer analysis of a signal, EPNL has been adopted for certain specialized uses involving the noise of individual aircraft over-flights.
Evapotranspiration	The portion of precipitation returned to the air through evaporation and plant transpiration.
Fault	A fracture in rock units along which there has been displacement.
Flocculant	A reagent added to water to aggregate minute suspended particles so that they may precipitate out of suspension.
Floodplain	That portion of a river valley, adjacent to the channel, that is built of sediments deposited during the present regimen of the stream and that is covered with water when the river overflows its banks at flood stages.
Fluvial Environment	River environment.
Fly Ash	Noncombustible residual particles from the combustion process.
Forage	Vegetation used for food by wildlife, particularly big game wildlife, and domestic livestock.
Forb	Any herbaceous plant other than a grass, especially one growing in a field or meadow.
Fugitive Dust	Dust particles suspended randomly in the air from road travel, excavation, and rock loading operations.
Gaining Stream	Segments of streams that receive a portion of their flow from groundwater sources.
Geochemistry	The study of the distribution and amounts of the chemical elements in minerals, coal, rocks, soils, water, and the atmosphere, and their circulation in nature on the basis of the properties of their atoms and ions.

Geotechnical	A branch of engineering concerned with the engineering design aspects of slope stability, settlement, earth pressures, bearing capacity, seepage control, and erosion.
Grade	A slope stated in feet per mile or as feet per feet (percent); the content of precious metals per volume of rock (ounces per ton).
Grade Separators	Overpasses used to separate mine traffic from public roads.
Growth media	Suitable material that may be used in place of topsoil for reclamation purposes.
Groundwater Gradient	Change in head per unit of distance measured in the direction of flow.
Groundwater Recovery	An increase in groundwater levels such that the groundwater elevations rise above initial baseline groundwater elevations. Used to refer to an increase in water levels following drawdown.
Groundwater Table	The surface between the zone of saturation and the zone of aeration; that surface of a body of unconfined groundwater at which the pressure is equal to that of the atmosphere.
Hz	Hertz. Frequency of one cycle per second.
Hydraulic Conductivity	The capacity of a rock to transmit water. It is expressed as the volume of water at the existing kinematic viscosity that will move in unit time under a unit hydraulic gradient through a unit area measured at right angles to the direction of flow.
Hydraulic Gradient	See groundwater gradient.
Hydraulic Head	The height of the free surface of a body of water above a given subsurface point.
Hydrostratigraphic Unit	Grouping of stratified, mainly sedimentary rocks that have similar hydrologic properties.
Hydrothermal Fluids	Naturally occurring fluids (i.e., geothermal waters) at high temperatures.
Impact	A modification in the status of the environment brought about by the Proposed Action or an alternative.
Indirect Impacts	Impacts that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable (40 Code of Federal Regulations 1508.8); synonymous with indirect effects.
Infiltration	The movement of water or some other liquid into the soil or rock through pores or other openings.
Infrastructure	The basic framework or underlying foundation of a community or project, including road networks, electric and gas distribution, water and sanitation services, and facilities.

Interburden	Non-ore grade material interlayered with ore or located within or horizontally adjacent to the ore such that it must be removed in the process of extracting ore grade material.
Intermittent Stream	A stream that flows only part of the time or during part of the year.
Irretrievable	Applies primarily to the lost production of renewable natural resources during the life of the project.
Irreversible	Applies primarily to the use of nonrenewable resources, such as minerals, cultural resources, wetlands, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.
Isotropic	Applies to hydraulic properties that are the same in all directions; uniform.
Jurassic	The span of time between 208 and 144 million years ago.
Jurisdictional Wetland	A wetland area identified and delineated by specific technical criteria, field indicators, and other information for purposes of public agency jurisdiction. The public agencies that administer jurisdictional wetlands are the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Natural Resources Conservation Service.
L_1	Sound level exceeded 1 percent of the time during a given period.
L_{10}	Sound level exceeded 10 percent of the time during a given period; often represents a short-term noise event associated with passing vehicles or airplanes flying over.
L_{50}	Sound level exceeded 50 percent of the time during a given period; the median sound level.
L_{90}	Sound level exceeded 90 percent of the time during a given period; sometimes used as an approximation for background noise.
L_d	Day average sound level. L_{eq} for the daytime period from 7:00 a.m. to 10:00 p.m.
L_{dn}	Day-night average sound level. L_{eq} for a 24-hour, midnight to midnight period with 10 dBA added to the sound levels from 10:00 p.m. to 7:00 a.m. (Sometimes also represented as DNL.)
L_{eq}	Equivalent continuous sound level. Level of steady state sound that, in a specific time period, has an equal amount of sound energy as the actual time-varying sound.
Lignite	A low-grade form of coal.
Lithic Scatter (Archaeology)	A discrete grouping of flakes of stone created as a byproduct in the tool making process. Often includes flakes used as tools as well as formal stone tools, such as projectile points, knives, or scrapers.

Lithologic Units	Rock formations.
L_{\max}	Maximum sound level. The greatest sound level measured on a sound level meter during a designated time interval or event, using “fast” time averaging on the meter.
L_n	Night average sound level. L_{eq} for the nighttime period from midnight to 7:00 a.m. and from 10:00 p.m. to midnight.
Losing Stream	A stream or reach of stream that contributes water to the saturated zone. Its channel lies above the water table.
L_p or SPL	Sound Pressure Level. A measure of the change in atmospheric pressure induced by sound; depends not only on the power of the sound source but also on the distance from the source and on the acoustical characteristics of the space surrounding the source. In decibels, 20 times the logarithm (base 10) of the ratio of a sound pressure to the reference sound pressure of 20 micropascals.
L_{pk}	Peak sound level. Maximum instantaneous sound level during a specified time interval or event.
L_w	Sound Power Level. A measure of the acoustic energy output of a sound source. In decibels, 10 times the logarithm (base 10) of the ratio of a given power to the reference power of 1 picowatt.
Macroinvertebrate	Large animals lacking a spinal cord.
Metalloids	Non-metallic elements having some of the chemical properties of metals.
Micromhos per Centimeter	A unit of measure for electrical conductivity in water. Higher values reflect greater levels of dissolved conductors, such as sodium, calcium, or magnesium salts.
Mitigate, Mitigation	To cause to become less severe or harmful; actions to avoid, minimize, rectify, reduce or eliminate, and compensate for impacts to environmental resources.
Monitor	To systematically and repeatedly watch, observe, or measure environmental conditions in order to track changes.
National Environmental Policy Act	The National Environmental Policy Act (NEPA) of 1969; the national charter for Protection Act protecting the environment. NEPA establishes policy, sets goals, and provides means for carrying out the policy. Regulations from 40 Code of Federal Regulations 1500-1508 implement the act.
National Pollutant Discharge Elimination System	A part of the Clean Water Act that requires point source dischargers to obtain Elimination System permits. These permits are referred to as NPDES permits and are administered by the U.S. Environmental Protection Agency.

National Register of Historic Places	A list, maintained by the National Park Service, of areas that have been designated as being of historical significance.
Native Species	Plants that originated in the area in which they are found (i.e., they naturally occur in that area).
Nephelometric Turbidity Unit	A unit measuring the dispersion of a beam of light passed through a sample of water. Silt and other fine, suspended particles disperse the light. Higher values imply (qualitatively) more suspended material.
NGVD	The National geodetic vertical datum of 1929 is a vertical geodetic datum formerly called sea level datum of 1929 or "mean sea level". It is based on sea level averages at 26 points along the U.S. and Canadian coasts over a period of many years.
Noise	Unwanted sound; one that interferes with one's hearing of something; a sound that lacks agreeable musical quality or is noticeably unpleasant.
Normal Fault	A dip-slip fault in which the block above the fault has moved downward relative to the block below.
Octave Band Level	The integrated sound pressure level of only those sine-wave components in a specified octave band.
Octave Band	A segment of the frequency spectrum separated by an octave.
Octave	The interval between two sounds having a frequency ratio of two. There are 8 octaves on the keyboard of a standard piano.
One-third Octave Band	A frequency band whose cutoff frequencies have a ratio of 2 to the one-third power, or approximately 1.26 (e.g., The cutoff frequencies of 891 Hz and 1,112 Hz define the 1,000 Hz third-octave band in common use).
Outfalls	Discharge points from the drainage control system to downstream drainages.
Overburden	Material that must be removed to allow access to an orebody, particularly in a surface mining operation.
Parent Material	Unconsolidated organic and inorganic mineral material in which soil forms.
Peak Flow	The greatest flow attained during winter snowmelt or during a large precipitation event.
Perched Water	Unconfined groundwater separated from the main body of groundwater by unsaturated rock.
Perennial Stream	A stream or reach of a stream that flows throughout the year.
Periphyton	Organisms that live attached to underwater surfaces.
pH	The measure of the acidity or basicity of a solution.

Phreatophyte	A plant that obtains its water from the saturated zone and generally has a deep root system.
Piezometer	A nonpumping well that is used to measure the elevation of a water table or a potentiometric surface.
Potentiometric Surface	A surface that represents the total head in an aquifer; that is, it represents the height above a datum plane at which the water level stands in tightly cased wells that penetrate the aquifer.
Recovery (Groundwater)	Used to refer to an increase in water levels following drawdown. An increase in groundwater levels such that the groundwater elevations return to approximate initial baseline groundwater elevations.
Right-of-Way	Strip of land or corridor through which a power line, access road, or maintenance road would pass.
Riparian	Situated on or pertaining to the bank of a river, stream, or other body of water. Riparian is normally used to refer to plants of all types that grow along streams, rivers, or at spring and seep sites.
Runoff	That part of precipitation that appears in surface streams; precipitation that is not retained on the site where it falls and is not absorbed by the soil.
Sediment	Material suspended in or settling to the bottom of a liquid. Sediment input comes from natural sources, such as soil erosion and rock weathering, as well as construction activities or anthropogenic sources, such as forest or agricultural practices.
Selective Handling	Procedures for separating suitable growth media from overburden and interburden sources.
Short Ton	2000 pounds.
Siemen	Per meter. A unit of electrical conductivity.
Soil Horizon	A layer of soil material approximately parallel to the land surface differing from adjacent genetically related layers in physical, chemical, and biological properties.
Soil Profile	A vertical section of the soil through all its horizons and extending into the parent material or to a depth of 60 inches.
Sound Power	The total sound energy radiated by a source per unit time. The unit of measurement is the watt or some fraction of a watt.
Sound Pressure	The instantaneous difference between the actual pressure produced by a sound wave and the average or barometric pressure at a given point in space.
Stratigraphy	Form, arrangement, geographic distribution, chronological succession, classification, and relationships of rock strata.

Strike-oriented Pit	A relatively straight excavation completed by dragline and/or other mobile equipment to uncover lignite seams that are oriented approximately parallel to the geologic strike of the lignite seam(s).
Tertiary	The geologic span of time between 65 and 3 to 2 million years ago.
Threatened Species	Any species of plant or animal that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.
Total Dissolved Solids	Total amount of dissolved material, organic or inorganic, contained in a sample of water.
Transmissivity	The rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of an aquifer under a unit hydraulic gradient; it equals the hydraulic conductivity multiplied by the aquifer thickness.
Visual Resource	The composite of basic terrain, geologic features, water features, vegetation patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for viewers.
Water Table	Level of water in the saturated zone at which the pressure is equal to the atmospheric pressure.
Waters of the United States	A jurisdictional term from Section 404 of the Clean Water Act referring to water bodies such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The use, degradation, or destruction of these waters could affect interstate or foreign commerce.
Wetlands	Areas that are inundated by surface or groundwater with a frequency sufficient to support (and under normal circumstances do or would support) a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.